ABSTRACT OF THE DISCLOSURE

The invention is a method of depositing an aluminum nitride comprising layer over a semiconductor substrate, a method of forming DRAM circuitry, DRAM circuitry, a method of forming a field emission device, and a field emission device. In one aspect, a method of depositing an aluminum nitride comprising layer over a semiconductor substrate includes positioning a semiconductor substrate within a chemical vapor deposition reactor. Ammonia and at least one of triethylaluminum and trimethylaluminum are fed to the reactor while the substrate is at a temperature of about 500°C or less and at a reactor pressure from about 100 mTorr to about 725 Torr effective to deposit a layer comprising aluminum nitride over the substrate at such temperature and reactor pressure. In one aspect, such layer is utilized as a cell dielectric layer in DRAM circuitry. In one aspect, such layer is deposited over emitters of a field emission display. The invention contemplates DRAM and field emission devices utilizing such layer and alternate layers.